



COURSE SYLLABUS, MATH 291, ELEMENTARY LINEAR ALGEBRA (HONORS), FALL 2024

INSTRUCTOR INFORMATION

<u>Name</u>	Dr. Daniel Hernández
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<u>Office</u>	527 Snow Hall
<u>Office Hours</u>	Consult the course website.

COURSE BASICS

<u>Time and location</u>	TuTh 11:00 - 11:50 AM, Snow 306
<u>Description</u>	Systems of linear equations, matrices, vector spaces, linear transformations, and applications.
<u>Prerequisites</u>	MATH 126 or MATH 146 with grade of C- or higher, and invitation from the Department of Mathematics.
<u>Format</u>	This is a lecture-only, in-person course.
<u>Credits</u>	This is a 2-credit course. According to KU policy , and the federal description of a credit hour, students are expected to spend at least 4 hours a week on this course outside of class.

ELECTRONIC COMMUNICATION

- (1) All electronic communications must occur through official KU email accounts.
- (2) In particular, Canvas messages should not be used to communicate electronically.
- (3) Consult our course website, and your peers, before asking procedural questions.
- (4) Students are expected to communicate semi-formally in all email correspondence.
- (5) The subject line of every message should be precise, and must start with the string "**[math-291]**". For example, "Subject:[math-291] A quick question on row reduction".
- (6) Understand that it is hard to discuss math via email. If you have a math question, you must clearly describe your thought process, and where you are running into trouble.
- (7) Due to the large volume of emails that I receive, I may not always be able to respond immediately, or even at all. In such situations, I ask that students be resourceful.
- (8) I am unlikely to respond to messages outside of standard working hours.
- (9) I am unlikely to respond to "last-minute" messages.

RESOURCES AND MATERIALS

<u>Course website</u>	https://hernandez.ku.edu/291.html
<u>Course Digest</u>	The Course Digest will be posted on our course website. Students are expected to read it before and after every lecture, and complete the tasks described therein in a timely manner.
<u>Textbook</u>	Our open textbook is <i>Linear algebra with applications</i> by W. Keith Nicholson. This, and a partial solutions manual associated to this textbook, will be posted on our course website.
<u>Online homework</u>	Online homework is through Lyryx . Access to Lyryx costs approximately \$40; instructions on how to register appear on the course website.
<u>Canvas</u>	Canvas will be used only to record grades. Instead of Canvas, students should monitor the course website and KU email.

ATTENDANCE AND PARTICIPATION

Students are expected to attend, and actively participate in, all lectures. For information on excused absences, see the [KU Excused Absences Policy](#). Student responsibilities in this context are described in subsection 2.2.4 of that policy.

REQUIREMENTS

<u>Homework</u>	There will be two types of homework, each assigned after every lecture: Online Lyryx homework, and problems from our textbook. Only online homework will count towards your grade. Textbook problems are meant to reinforce key conceptual ideas, and students are encouraged to consult the partial solutions manual to assist with these problems.						
<u>Quizzes</u>	In-class quizzes will be given regularly throughout the semester. These should be regarded as pop quizzes.						
<u>Honors projects</u>	Students will complete at least 4 in-depth group projects.						
<u>Exams</u>	<table> <tr> <td><u>Midterm 1</u></td> <td>Tuesday, October 08 (tentative)</td> </tr> <tr> <td><u>Midterm 2</u></td> <td>Thursday, November 21 (tentative)</td> </tr> <tr> <td><u>Final Exam</u></td> <td>Monday, December 16, 10:30 AM - 01:00 PM</td> </tr> </table>	<u>Midterm 1</u>	Tuesday, October 08 (tentative)	<u>Midterm 2</u>	Thursday, November 21 (tentative)	<u>Final Exam</u>	Monday, December 16, 10:30 AM - 01:00 PM
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<u>Missed lectures</u>	Students who miss lecture are responsible for seeking notes from a classmate. We follow the KU Excused Absences Policy for missed quizzes and exams.						
<u>Late work</u>	Outside of situations covered by the KU Excused Absences Policy , late work is not accepted.						
<u>Extra credit</u>	We offer no extra credit.						

LEARNING OUTCOMES

We will cover Sections 1.1, 1.2, 1.3, 1.6, 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 3.1, 3.2, 3.3, 3.4, 5.1, 5.2, 5.4 in our textbook. Students will learn the theoretical basis behind, and how to apply, algorithms for computing solutions to linear systems of equations, matrix kernels, matrix inverses, eigenvalues, eigenvectors, bases for linear subspaces of Euclidean spaces. Students will also learn some fundamental applications of linear algebra to other areas.

EVALUATION CRITERIA AND GRADING SCALE

Homework	Quizzes	Honors Projects	Midterm 1	Midterm 2	Final Exam
10 %	10 %	15 %	20 %	20 %	25 %

A course evaluation will be available to students at the end of the semester.

ACADEMIC INTEGRITY AND PROFESSIONAL CONDUCT

We follow the [KU Academic Misconduct Policy](#). In this context, students are held to the highest standard, and any failure to meet this standard will trigger severe consequences.

CLASSROOM BEHAVIORAL EXPECTATIONS

- (1) The use of phones, computers, or any other device that may cause a distraction, is forbidden during lecture. Text messaging and internet browsing will not be tolerated.
- (2) Food and drink in disposable containers are forbidden from lecture.

COMMERCIAL NOTE-TAKING

Commercial note-taking is not permitted in this course. Course materials, including notes, may not be sold to any person or entity. Any student engaged in, or contributing to, the commercial exchange of notes or course materials will be subject to discipline, including academic misconduct charges, in accordance with [KU policy](#). Note: note-taking provided by a student volunteer for a student with a disability, as a reasonable accommodation under the ADA, is not the same as commercial note-taking and is not covered under this policy.

ADDITIONAL RESOURCES AND POLICY INFORMATION

Student Resources

- [University Academic Support Centers!](#)
- [Counseling and Educational Support Services](#)
- [The KU Writing Center](#)
- [Religious Observances](#)

University Policies

- [Academic Misconduct](#)
- [Change of Grade](#)
- [Diversity and Inclusion](#)
- [Mandatory Reporting \(Title IX/Civil Rights\)](#)
- [Nondiscrimination, Equal Opportunity, and Affirmative Action](#)
- [Sexual Harassment](#)
- [Student Rights and Responsibilities](#)
- [Racial and Ethnic Harassment Policy](#)
- [Commitment to Integrity and Ethical Conduct](#)
- [KBOR Statement on Free Expression](#)
- [Weapons, Including Firearms!](#)

The [KU Student Affairs Student Resources website](#) provides links to KU Policies and Resources pertaining to academic misconduct, grading policies, harassment and discrimination, diversity and inclusion, mandatory reporting, equal opportunity and affirmative action, and student rights and responsibilities. Please visit the site to familiarize yourself with these policies and resources. Contact your instructor, or Student Affairs directly, if you have questions or concerns about any of these policies and resources.

CHANGES TO THIS SYLLABUS

The course policies described herein are subject to change. Any such changes will be made at the discretion of the instructor, and informed by the best interests of the students. These will be announced during class, and also electronically, via email.